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C. R. ORCUTT, EDITOR AND PUBLISHER.

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L. E. ORCUTT.

VOL. VII. SEPTEMBER 1890. WHOLE NO. 53.

NEW COCCIDS FROM CALIFORNIA, AND ONE OF THEIR CHALCID PARASITES.

In the WEST AMERICAN SCIENTIST for October, 1889, I recorded three species of Dactylopius as occurring in this State, and gave descriptions of two of the species which were new to science; since the publication of that paper I have detected two other species of Dactylopius: D. longifilis, and a new species which I found in this (Los Angeles) county. I append herewith a detailed description of this new species.

Dactylopius ephedrae. n. sp. Adult female elongate-ellipsoidal, from two and a half to three times as long as broad, dark olive, almost black, thinly covered with a snow-white mealy powder not entirely concealing the ground color; cottony appendages confined to posterior end of body, the longest less than half the length of the body; legs and antennæ yellowish-brown; antennæ eight-jointed, joint 8 the longest and of nearly an equal width, the apex bluntly rounded; joints 2 and 3 are sub-equal in length, and each is but slightly shorter than 8; joint 5 is but slightly shorter than 3, but is nearly twice as long as 7, and is four times as long as broad; joint 6 is next in length, and is but slightly longer than joint 1, which is nearly as broad as long; joints 4 and 7 are sub-equal in length, shorter than any of the others, each about half as long as joint 8; when laid backward the antennæ reach the posterior side of the front coxae; tarsi scarcely one-third the tibiæ in length, claw destitute of a tooth below, digitules not knobbed; length of body 4 m. m.

In the table of species given in the paper above referred to, this species will fall in with crawii, from which it is easily distinguished by the length of the fifth antennal joint, which is four times as long as broad, instead of being only twice as long.

Lives on the stems of Ephedra californica, as kindly determined for me by the Editor.

The adult female secretes a layer of white cottony matter from the lower part of her body, and this is gradually extended upward until finally the entire insect is enclosed in a cottony sac. The young are brought forth alive, and in one of the sacs I counted fifty-three young ones.

The recently hatched larva is pale yellow in color, elongate-ellipsoidal in outline, being three times as long as broad, the posterior end truncated and bearing three small tubercles, and from each of the outer ones issues a short brush of a white cottony matter; a bright red spot on underside of abdomen near the front end; antennæ six-jointed, joint 6 the longest, being three times as long as 5; joints 3, 4 and 5 sub-equel in length, each somewhat shorter than 2; upper and lower tarsal digitules very prominent, but not knobbed.

At the same time and place mentioned above I also found on the leaves of Yucca whipplei a coccid so closely resembling a Dactylopius as to be easily mistaken for one; the antennæ of the

adult female, however, have nine joints, instead of only eight, and the species therefore belongs to the allied genus Pseudococcus. I append herewith a description of this species.

Pscudococcus yuccæ n. sp. Adult female pale greenish; thinly covered with a white mealy powder not concealing the ground color; body elongate-ellipsoidal, the posterior end deeply emarginate; margins bearing a row of flattened white cottony tufts, the two anal ones not exceeding one-third length of body; legs blackish-brown, the articulations whitish; antennæ dark brown, apex of each joint except the last one whitish; antennæ slenderest in the middle, nine-jointed; joint 3 is the longest, and is nearly twice as long as 2; joint 9 is next in length, and is one-fifth longer than 8; joints 4, 5, 6, 7 and 8 becoming successively slightly shorter, but the difference in length between 4 and 8 is scarcely perceptible; joints 1 and 2 sub-equel in length and shorter than either of the others; joint 1 is more robust than the others, and is as broad as long, being considerably broadest at its base; joint 2 is twice as long as broad; when laid backward, the last two antennal joints project beyond the posterior side of the front coxæ; tarsi one-third as long as the tibiæ, the claw bearing a distinct tooth on the underside beyond the middle; digitules not knobbed; on the underside of the second abdominal segment is a dark colored transverse ridge about equaling the tarsi in length; length of body 6 m. m.

Lives on the leaves of Yucca whipplei. At the time of my visit, July 5th, none of the females had secreted a cottony egg-sac, nor did I succeed in obtaining either the eggs or the young larvæ of this species. From one of the adult females I bred an interesting Chalcid-fly, and as it clearly represents a new species and is so characteristically marked as to be readily recognized, I append a description of it herewith.

Blastothrix yuccæ n. sp. Female. Antennæ evenly clothed with short depressed hairs; scape compressed, and greatly dilated below, its greatest width about equaling three-fourths its length, six or seven times as wide as the pedicel; the latter is twice as long as broad, and is slightly shorter than the first funicle joint; funicle joints decreasing considerably in length and increasing slightly in thickness towards the apex, the sixth funicle joint but slightly longer than thick, about two-thirds as long as the first funicle joint; club three times as long as last funicle joint and much more robust, the apex bluntly rounded; thorax lusterless, coarsely punctured and clothed with depressed coarse white bristles; apex of mesoscutellum, bearing eight long black bristles; abdomen quite coarsely punctured and clothed with stout depressed white bristles; curved front tibial spine bifid at the tip; wings hyaline, marginal vein two-thirds as long as the stigmal, but slightly longer than the postmarginal; end of stigmal vein bilobed, but destitute of the usual tooth projecting toward the costa; near the base of the stigmal vein is a large oblique hairless space; submarginal vein bearing a row of stout bristles; color black, each end of scape apex of pedicel,

funicle joints 2 to 6, and the antennal club pure white, dorsum of thorax dark brown, the sides yellowish, front and middle femora and tibiæ whitish, hind femora and base of hind tibiæ dark brown, all tarsi whitish, infuscated toward the tips. Length one and three-fourths m. m.

Issued July 7th from an adult Pseudococcus yuccæ female.

Since writing the above I have received word from Dr. Riley, our national Entomologist, to whom I sent specimens of each of the above described Coccids; he writes me that they are probably new species belonging to the genera to which I have referred them. Both species are evidently natives of this coast.

Los Angeles, August 1, 1890. *D. W. Coquillett.*

THE CANCHALAGUA.

(*Pacific Rural Press*, Aug. 23, 1890.)

If you visit this winter some of the Spanish sections in Southern California, where the large, spacious adobe house still remains in fashion, you may from curiosity desire to cross the threshold of some humble Mexican family or even to glance within the squalid hut of the Indian. Should you do any of these things, it is more than likely that you will find carefully hung in some safe place bunches of a little plant that has been dried for use in case of emergency.

The plant to which I refer is the Conchalagua or Canchalagua of the Mexicans and Indians, the California pink or centaury of the English race, Erythraea venusta of botanists. Medicinally this plant possesses valuable antiseptic and febrifuge properties and is in high repute as a bitter tonic and stomachic. With the old Mexican families and the few surviving Indians it is an ever-present and valued household remedy, and is seldom missing from their rafters, together with red-peppers and "jerky," when they have not become too civilized for these luxuries.

Some have asserted that this plant forms the basis of the widely advertised medicine known as August flower, but of this I have no satisfactory proof. However, it is used by the medical profession to a considerable extent, and I have an order from a prominent homeopathic firm for a quantity of the drug.

But it is not to the real or fancied medicinal qualities of this herb that I would call attention, but rather to its surpassing loveliness as a flower, ranking among the foremost of the many handsome flowers which California has given to the horticulturist.

It seldom exceeds a foot in height, the plant being a low-branching annual, bearing a multitude of showy flowers on pale-greenish stems with light apple-green foliage. The corolla is rotate, with a slender tube and five (rarely four or six) divisions. The corolla exceeds an inch across, the five divisions of a brilliant shade belonging somewhere between solferino and magenta—too dark and brilliant for rose-purple, with a narrow white circle where the five divisions unite. The center and tube of the corolla

is of a greenish sulphur-yellow, while the prominent exserted, erect, spirally twisted anthers are of a brilliant lemon-yellow. The slender style and filaments are white, the stigma of a delicate sulphur-yellow.

The blossoms close their eyes upon the going down of the sun, turning their fresh faces to him again as he rises in the east. Not until after the last rains of the season, and May Day is safely past, does the canchalagua put out its stars of color; but from then on to the middle of July it replaces the earlier spring flowers and gives the eager school children pretext for wandering over hill and mesa in search of flowers.

And such bouquets as they do gather! Nothing but apple-green and solferino which match well with the children's happy faces; and these flowers seem to mind their rough handling the least bit in the world. Whether left by the roadside, or in the hall to wither, or in a parlor vase without a drop of water, they still persist for days and weeks in turning a bright, independent face to the sunlight as if they were contented, as no doubt they are.

While the flower is usually nearest akin to solferino in color, yet sometimes, though rarely, it is of a delicate pale lavender or else pure white. In 1884 I gathered numerous examples of this with pure white corollas, and on sending specimens to an eminent botanist, he was at first inclined to consider it a new species, until I explained that they were innocent albinos, with no intent to deceive.

The plant is widely distributed on the Pacific Coast, throughout Southern California, southward, I believe, to Chili, in South America, where it first gained notoriety as a medicinal herb. In Southern California it is quite variable, sometimes with quite small, inconspicuous flowers, but more commonly with the large brilliant flowers, as above described.

The genus contains numerous European species also, and belongs to the well-known Gentian family, so many members of which belong in good society that I do not hesitate to introduce this new beauty to horticultural circles. Dr. Veit Brecher Wittrock, of the Royal Academy of Science of Stockholm, Sweden, has made a special study of the genus. At his request I sent him the Californian forms accessible to me, and among them he found one (from Washington, collected by a correspondent) that was new to science. He made carefully prepared figures and descriptions of our canchalagua and its relatives, but his introduction only brought it to the attention of botanists—not to horticultural notice.

Doubtless it would do well in cultivation if given a little encouragement and not too much water. Try it when you can get the seed.

C. R. Orcutt.

AN OUTLINE OF THE GEOLOGY OF VANCOUVER ISLAND.

If we study the past history—not political, but geological—of the great island of Vancouver, and in fact of all the territory surrounding the Straits of Georgia, San Juan de Fuca, and of Puget Sound, we will find, that in geological aspect, the country mentioned is no less interesting than the famous volcanic regions of the more southern part of this continent. If a student dissatisfied with the Neptunic world of British Columbia turns his mind toward that of Pluto, he will have his curiosity well satisfied; or if, tired with investigation of prehistoric glaciers, prefers to fathom the mystery of the coal-bearing regions, he will also find himself before an interesting problem. The geology of the country mentioned above is interesting like its fauna and flora; it contains many epochs and many formations. There was a time when Vancouver Island was a low country, probably a prairie land, and at the end of the Tertiary period there was no Fraser River, no Straits of Georgia and Fuca, no Puget Sound. At that time volcanic forces began to work, here with terrible fury, there slowly rents and fissures were made, and now instead of a prairie we have a mountainous country, traversed by rapid streams, and cut by ravines and canyons The formation of the country shows plainly this mighty working of the mysterious forces of nature.

Again there was a time when there were stupendous glaciers between the island of Vancouver and the mainland. According to Dr. George M. Dawson, the whole Queen Charlotte Sound was at one time occupied by a great glacier. A second glacier of equal magnitude occupied the whole Strait of Georgia, having, in some places, a width of fifty miles, a minimum thickness of 300 feet in the northern part and of about 700 feet in its southeastern extremity. And this extremity was near the doors of the now beautiful city of Victoria. Dr. Dawson further states that evidence was found in the vicinity of Victoria and Nanaimo, to prove that when the Strait of Georgia glacier decreased, and shrank back, the land was at a lower level than now, and the deposits found in these localities containing marine shells, were formed at or near the wasting edge of the glacier. The curious reader will find the evidence advanced by the bold savant in the Quarterly Journal of the Geological Society, Vols. XXXIV and XXXVII.

The climate of Vancouver and the neighboring country, as it is now, prevents the formation of glaciers as they existed in the ages gone by. Still it is not improbable that the country may again beome a sheet of ice. Many scientists, especially Professor Agassiz, demonstrated that at the end of the Tertiary period the northern hemisphere north of forty degrees was covered with ice as Greenland is in our day. The climate is mild and genial, but should the average temperature of the Straits of Georgia

and Fuca be lowered some 15 or 20 degrees, then the sun of summer would be unable to melt the ice and snow accumulated in winter. The consequence would be that in a few centuries Vancouver Island would become a vast field of ice. Fortunately this probability is far remote.

There was also a time when the island had a warmer climate, perhaps 15 degrees more than the present average of Georgia Strait. The climate although warmer, was also more moist than it is now, and the rainfalls were very heavy. In such a climate the coal deposits were formed. It could not have been warmer or colder. If warmer, then the vegetable matter would have decayed and become soil before it had time to become lignite ; if colder, then the island could not have produced rich enough vegetation.

The coal deposits of Vancouver Island belong not to the Carboniferous but to the Cretaceous period. The Cretaceous rocks rest upon the beds of older formation, and consist of sandstones, conglomerates and shales and contain many fossil plants and marine shells. Among the plants we find usually angiospermous and gymnospermous genera, and among the fossils the most characteristic are specimens of Ancella Piochii. These shells are often washed out from the rocks and carried down by the waves even so far as the vicinity of Victoria. One magnificent specimen of Ancella was found by the writer on the beach of Ross Bay, and must have been carried down by the waves from the vicinity of Satellite Channel, or from some other part where there are Cretaceous rocks.

The range of mountains which traverse Vancouver Island from north to south shows also a curious formation. It consists chiefly of crystalline schists, here varying in texture, there in color, in part Carboniferous sometimes interbedded with slate rocks of more recent volcanic origin, and often subjected to metamorphism. The argillites and limestones of these rocks contain in numerous localities Triassic fossils. The beds underlying the Cretaceous rocks are also in great part altered—volcanic materials interbedded with argillites and limestones. This entire mass of rocks is known under the term of the *Vancouver Series*, the name originally applied by Dr. Selwyn and adopted by Dr. Dawson.

The city of Victoria rests upon a series of rocks different from any other on the island, and chiefly built of felspathic and dioritic masses, here and there becoming gneisses and mica-schists and in places interbedded with limestone. The neighbors of Victoria, the inhabitants of Sooke, have built their houses also on beds which do not occur anywhere else on the island. These beds are Tertiary and consist of sandstones, conglomerates and shales, sometimes carbonaceous. Many of the readers who have been to Port Townsend undoubtedly remember the high bluffs on the coast of Washington. These bluffs belong to the same formation as the beds of Sooke and in fact the Tertiary rocks sur-

round the State of Washington with the exception of north and south of Seattle. On the mainland of British Columbia they begin south of Burrard Inlet, cross the delta of the Fraser, and the international boundary, and end near Snohomish River, Washington. *M. Lopatecki.*

TURTLES OF CALIFORNIA.

Among the lower forms of vertebrate life, the order Chelonia includes members less variable in form than any other order of reptilia. The body is invariably short and stout, and is in all the known forms protected from above and below by a more or less bony investment, forming a shield-like covering.

CHELOPUS MARMORATUS. This is the common terrapin or turtle that is found in the fresh water streams and lagoons of California. It is abundant in South California, and may often be surprised on the banks of any of our permanent streams, or in our numerous fresh water lakes. This is the Emys nigra, Nob., described in the Pacific R. R. Report, Vol. X., Part IV., pp. 2-3, which is accompanied by a lifelike illustration (Plate I). In color it is blackish above, the upper part of head and neck presenting numerous very small, yellow spots upon a black ground; anterior extremities with a tinge of yellow; under jaw and throat yellow, with dark colored markings; plastron yellow in the middle, with large blotches of black or dark brown at the sides, and anteriorly and posteriorly; under surface of tail and extremities blackish. The carapax is about six inches in length on the average. I have found this species only on the western slope of the mountains, and not in the Colorado Desert region. It extends southward into Lower California. Actinemys marmorata is another synonym of this species.

TESTUDO AGASSIZII. This turtle, or land tortoise, has a very convex shell, and feet developed for a terrestrial life—which it needs to have, since it inhabits the dry, arid region of the Colorado Desert where water is very scarce. The toes are distinct, the feet club-shaped, and the caudal plates united. The species is also found on the Mojave Desert, in Arizona and Sonora, and evidently not rare.

SPHARGIS CORIACEA. Of the sea turtles known in the waters of the Californian coast, the leather-back turtle is of the widest distribution in the temperate portions of the Atlantic, Pacific and Indian oceans and in the Mediterranean sea. Its habits are little known. An example of this was captured a few years ago near San Diego, and is preserved in the Coronado Museum.

ERETMOCHELYS SQUAMATA. This sea turtle belongs to the Pacific coast fauna, and probably may be found near San Diego.

CHELONIA MYDAS. The most valuable of the turtles for food is this, the green turtle. A form of this belongs also to the

fauna of the Pacific coast, and the flesh of our form is said to rival that of the Atlantic in flavor, though at certain seasons of the year it is reputed unhealthy.

Formerly considerable numbers of turtles were to be found in San Diego bay, but their numbers have greatly decreased in the last decade. They are still comparatively abundant in the bays and lagoons on the Pacific coast of Baja California, and they are often found in the San Diego and San Francisco markets from the lower coast.

But little is practically known concerning the habits of our turtles, except of such as have been studied at some foreign locality. Possibly more than the five above-mentioned species belong in our fauna, and if so, it would be of interest to learn of them.

C. R. Orcutt.

PROCEEDINGS OF SCIENTIFIC SOCIETIES.

Santa Barbara Society of Natural History, June 28, 1890. The corresponding secretary read a letter from Dr. Earl Flint of Nicaragua, one of the newly elected honorary members of the society.

The librarian reported the additions to the library and museum, among the latter, a large number of specimen trays donated by Mr. W. H. Woodbridge.

The secretary read communications from R. E. Peary, C. E., of the United States Navy in relation to Arctic research; and from C. Hart Merriam, United States ornithologist, in answer to a notice sent to him by the secretary, of the occurrence of the Sonoran hooded oriole (Icterus cucullatus Nelsoni) in Santa Barbara gardens; its northern recorded limit. The secretary read the following, 'Notes on new, or interesting Mollusca of Santa Barbara county.'

While engaged in preparing a 'list of the known Mollusca of Santa Barbara county, for publication my attention has been particularly attracted to some new and rare forms, among them the new genus of Nudibranchiates discovered and named by Dr. Fewkes, a notice of which was published in my 'List of the Mollusca of the Channel Islands' in the report of our State Mineralogist, an illustration of which was exhibited.

Dr. Fewkes named the genus, Cabrilla, from Cabrillo the famous Portuguese navigator who discovered our islands, and was buried upon one of them. The species was discovered attached to the anchor of a buoy in Prisoner's Harbor, Santa Cruz Island, and is named Cabrilla occidentalis; it is a soft slug-like animal somewhat resembling the Sea Hares (Aplysia).

A species of Vermiculus, probably new, this genus was not heretofore noted from California, found with a Cerithium also new to California, by Albert E. Yates, in this county.

A species of Venus, in the channel, probably new, also some interesting species dredged years ago by Messrs. H. C. Ford and J. W. Calkins.

Our newly elected member, Mr. I. B. Hardy, an enthusiastic collector, has discovered a colony of interesting minute bivalves, (Lasea rubra) at Castle Rock.

Dr. L. G. Yates' manuscript list shows a large number of species whose northern or southern limit is restricted to this county.

The members of this society should take special pains to collect and place upon record everything in the shape of shells and other invertebrate marine animals found within the limit of this county, not alone for the reason that our society should possess specimens in its collection, but also that the already large and interesting series may be increased and their value to science enhanced.

Many of the species accredited to our county are not represented in Santa Barbara collections.

The society was favored by a visit from Miss Yda Addis, who gave an interesting account of some of the incidents of her travels and researches in Mexico, in connection with photographs of interesting ruins, etc., which she had visited.

Lorenzo G. Yates, Secretary.

EDITORIAL.

Mr. D. W. Coquillett sends us a specimen of Bigelovia brachylepis Gray, from a valley eighteen miles north of Los Angeles city, where it grows in clumps about five feet in height. Two species of scale insects—one probably new—were found inhabiting this much branched shrub.

Dr. A. Davidson sends us Cheilanthes Cooperae from Ventura. Among other plants he sends us a new species of Bloomeria which will be published later.

The editor has had the pleasure of visiting each of his several places of business during the past thirty days. Our San Francisco office was found as lively as usual; the San Diego College of Letters busily preparing for the return of students and new life: our San Diego office is migrating, while at Orcutt the quantity of ink, paper and postage stamps consumed is enormous.

A pleasant day was spent in August with Mr. Geo F. Kunz, who, fortunately for us, was persistent enough to find the editor. We hope he may find time to visit us again soon, and get a peep at our back country.

NOTES AND NEWS.

We expect to soon have the pleasure of publishing some of the papers read before the Gray memorial botanical chapter of the Agassiz Association. G. H. Hicks, Owosso, Mich., is the able president of this chapter, who should be addressed by those wishing to join.

The editor is always glad to identify plants or shells from the west for anyone. Frequent absence prevents promptness in corresponding at times.

Among the various uses of celluloid, it would appear to be a suitable sheathing for ships, in place of copper. In experiments by M. Butaine, plates of celluloid applied to various vessels in January last were removed five or six months after, and found intact and free from marine vegetation, which was abundant on parts uncovered.

That the eastern half of our continent is slowly foundering in the Atlantic is a fact well known to science. The rate is slow—a few inches in a hundred years—but, like Mercutio's wound it is 'enough.' Its effects do not come insensibly—like a thief in the night—each generation is amply able to take care of itself by means of which it is unconscious; they are felt at long intervals in storms whose devastations are greater and extend further inland than any previously experienced.

In France when a patient is under chloroform, on the slightest symptom appearing of failure of the heart they turn him nearly upside down, that is, with his head downward and his heels in the air. This, they say, always restores him, and such is their faith in the efficiency of this method that the operating tables in the Paris hospitals are made so that in an instant they can be elevated with one end in the air, so as to bring the patient into a position resembling that of standing on his head.

Dr. Edward Palmer and Mr. T. S. Brandegee were to leave San Francisco on the 25th of August to continue their botanical explorations in Lower California and the Gulf regions.

M. Crepin, of the Jardin Botanic, Bruxelles, Belgium, desires specimens of all forms of North American roses. This eminent botanist has made a special study of the roses of the world for over thirty years. Botanists are invited to respond to his request for specimens.

The new building of the "Cal. Academy of Sciences" is nearing completion. The marble stairways will cost more than all its past contributions to science!

The California State Museum is said to contain the finest collection of minerals in the world. All the collections in the State

Museum are well displayed—better than any other collection on the coast. The entire collections are valued at over a quarter of a million of dollars. The State Mining Bureau is doing a good work in building up such a museum.

CATALOGUE OF THE LIBRARY OF THE WEST AMERICAN MUSEUM OF NATURE AND ART.

PART II.

We herewith commence the publication of a list of the current additions to the editor's library, either by purchase or exchange. We hope to give Part I of this catalogue as a supplement as soon as we find time to prepare the list for the printer.

4001. Catalogue of minerals for sale by Geo. L. English & Co., Philadelphia and New York. June 1890. 15th edition, 8, 100 pages. Price 25 cents (paper edition free). From Geo. L. English & Co.

4002. Cucurbitacearum novum genus et species. Auctore A. Cogniaux. Advance proof from the Proceedings of the California Academy of Sciences, n. s., vol. III, 1890. From T. S. Brandegee. A new genus, Brandegea, is founded on *Elaterium bigelovii* Watson.

4003. Catalogue of the library of the California Academy of Sciences to January 1, 1889. Ext. from Proc. Cal. Acad. Ser. 2, vol. I. From Mrs. T. S. Brandegee.

4004. Materiaux pour servir a l'histoire des roses par Francois Crepin. Ext. Bull. Soc. Roy. de Bot. de Belgique, vol. XV, pp. 371-462. 1876. From the author.

4005. Note sur les recentes decouvertes de roses en amerique, par Francois Crepin. Ext. l. c., XXI, 146–149, 1882. From the author.

4006. Nouvelles remarques sur les roses americaines, par Francois Crepin. Ext. l. c., XXVI. 1–10. 1887. From the author.

4007. Examen de quelques idees em ses par MM. Burnat et Gremli sur le genre rosa par Francois Crepin. Ext. l. c., XXVII. 1-25. 1888. From the author.

4008. Nouvelles remarques sur les roses americaines (suite), par Francois Crepin. Ext. l. c., XXVIII. 11–26. 1889. From the author.

4009. Sketch of a new classification of roses. By Francois Crepin. Reprinted from the Jour. of the Royal Hort. Soc., pt. 3, vol. XI., October, 1889. 12 pp. From the author.

4010. Quintessence of socialism. By A. Schaffle. Translated from the 8th German edition by Bernard Bosanquet, M. A., New York. Humboldt library, No. 124. 1890. Price 15 cents. From the publishers, 28 Lafayette place.

4011. Darwinism and politics. By David G. Ritchie, M. A., and Administrative Nihilism. By Thomas H. Huxley, F. R. S., New York. Humboldt library, No. 125. 1890. Price 15 cents. From the publishers.

4012. Physiognomy of expression. By Paolo Mantegazza. Part 1, 3, New York, Humboldt library, No. 126 (double number). Price 30 cents.

4013. Same. Part 2. Price 30 cents. From the publishers.

4014. Cactaceous plants; their history and culture. By Lewis Castle. With numerous illustrations. London, 1384. 8vo. 93 pp. Price one shilling. From Dr. P. Radenhausen.

4015. Organogenie de la classe des Cactoides (Cactees, Ficoides et Tetragoniees), et de celle des Berberinees (Berberidees, Menispermees), par M. Payer. Ext. des Ann. des Sci. Nat., XVIII, 1–24. With 6 plates. From Dr. P. Radenhausen.

4016. Enumeratio diagnostica Cactearum Hucusque Cognitarum. Auctore Ludovico Pfeiffer. Berolini. 1837. 8vo. 192 pp. From Dr. P. Radenhausen

4017. Revue de la Famille des Cactees avec des observations sur leur vegetation et leur culture, ainsi que sur celles des autres plantes grasses, par M. A. P. DeCandolle. Paris, 1829, 4. 120 pp. 21 plates. From Dr. P. Radenhausen.

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LITERARY AND EDUCATIONAL SUPPLEMENT, No. 2.

(*Eaited by the Students and Faculty of the San Diego College of Letters.*)

Poets' Corner.

CARMEN.

Cano carmen sixpence, a corbis plena rye,
Multas aves atras percoctas in a pie;
Ubi pie apertus turn canit avium grex;
Nonne suavis cibus hoc locari ante rex?
Fuissat rex in parlor, multo de nummo tumens;
Regina in culina, bread and mel consumens;
Ancilla was in horto, dependens out her clothes,
Quum venit parva carnix demorsa est her nose.

Mater Anser's Melodies.

GRAPE PICKING.

Could you see me now, Professor,
Bending as before a shrine,
Gouging with a frantic bluster
At this tangled mass of vine,
All the time "a makin' mashes"
Of my only suit of clothes,
In my fingers cutting gashes,
Burning blisters on my nose.
You, perhaps, would scarce remember,
How once you taught that earthly joys
Alone were found in classic labor,
Plucking grapes like Virgil's boys.
For, truly, Virgil owned a grapevine,
Horace boasts a rusty plow,
And warm with love our fond hearts
shrine
For dear Robbie and his kicking cow.
But oh the heartaches! Oh the backaches!
Shooting pains in every pore!
Oh the blisters that the sun makes,
As it rakes me o'er and o'er!
Out upon those old bucolics!
Out upon the classic vine!
Naught I swear, but alcholics
E'er inspired the muses nine!
Oh to end this fraud of living!
I can! I will! Oh wretched sinner!
I'll drown myself and end all grieving
In the windmill tank,—after dinner.

Charles L. Williams.

At the beach during the wild years long gone,
There grew no tree on mesa or lawn
'Till they founded and built the S. D. College,
And planted the umbrageous tree of knowledge.

Though some men dazzle like the moon,
It is not best to make a guide of them,
For, like the moon you may find soon,
You've only seen one side of them.

Tid-Bits.

Every good Mussulman must Mecca pilgrimage.

At Home.

LOCALS AND PERSONALS.

"Hans vishes to eaten vatervellion py you behind 7 o'clock," was the characteristic invitation that each one of we students received one of these warm, summer evenings. The watermelon eating took place in Mr. Grolis' empty cottage where the boys had waxed the floors for dancing. After a little dance we ate a "'million" or so a piece and enjoyed a lively game of blindman's buff. Thank you, Mr. Hans.

The picturesque beauty of our bay is complete with the white wings of the college boat.

During Miss Helen Givens' visit at Mrs. Cogswell's. Miss Mary Cogswell, one of the resident students, gave a delightful ice cream party in honor of her visitor. Pleasant games in the Dr's. beautiful home made the evening pass almost too quickly.

Miss Mary also took a large party of Chula Vistans to our delightful suburb, La Jolla. No doubt she will succeed in convincing them that this north end of the bay has at least as many attractions as the south.

Miss Laura Gearn, who has been visiting Miss Pearl Wagner, has been enjoying a week or two of "glorious" fun, boating, swimming and driving. In spite of the fact that she did get her nose freckled, Laura couldn't wait for school to begin but had to come out to see what we did during vacation.

Vacation is almost gone!

Miss Belle Jacoby, who has lately returned from her summer rusticating, and our old friend Miss Rosella Fishburn were welcome visitors at the college but a short time ago. Belle is so improved in health that she will be able to attend school this year.

"Brother" Jim was given a very pleasant celebration of his fifteenth birthday the evening of August 13th, at the Wagner cottage. "We had a n-ice time," so Mr. Wagner said.

Charles Williams, a former fellow student paid the college a short visit a few days ago.

To Mrs. Davidson's kind thoughtfulness must be attributed the unique idea of a combination birthday party, and not only the idea but the carrying out of the idea, in a most agreeable manner So many of the birthdays of the folks, little and big, of the college, came in the month of August that something had to be done. Music by Mrs. Jewel, whose birthday came in the lucky month, and music by her wee, blue-eyed girl Frankie, games and dances in the assembly room in Stough Hall and delicious refreshments and then more games and fun and music was the "something" done.

THE AUGUST ST. NICHOLAS, 1890.

St. Nicholas has a charming frontispiece for August. It is an illustration by Birch to the serial story "Lady Jane," and shows the former dancing-master, who has become a greengrocer, recalling his triumphs in teaching the pretty heroine the elaborate steps in vogue during his youth. The story itself is delightful. Some of the summery features are "The White Mountain Coaching Parade" of decorated tally-hos in competition for prizes, described in a sketchy way by Helen Marshall North; "A Lesson of the Sea," by W. J. Henderson, a simple bit of strong descriptive writing; "A Remarkable Boat Race," wherein Walter Camp describes the Atalanta-Yale race and its sensational feature—the leaping from the boat of Yale's stroke after he had broken his oar; "The Sea Princess," a pretty picture described in musical verse by the artist Miss Katharine Pyle; "Cupid and Crab," an odd little fancy of the sea shore, daintily illustrated by Albertine Wheelan Randall; "The Audacious Kitten," one of Oliver Herford's jests with pen and pencil.

School and College.

SCHOOL AND COLLEGE.

The Chicago *News* notes that elderly college men (especially as presidents) are disappearing, and are being succeeded by younger men.

The University of California has a library of 38,000 volumes.

In an interesting article in the *Academy*, by Professor V. M. Spalding, on Asa Gray the botanist, his patience and aptitude in teaching after he became eminent, and his life, laborious in the cause of science, are especially dwelt upon. Evidently Dr. Gray regarded the function of a teacher as important as the labors of scientific research. His life work, the "Flora of North America,"—how vast the subject!—nears completion in other hands than of those of the honored botanist of Cambridge.

"The happiest of all callings, and the most imperishable of all arts," is what Mr. John Morley said of literature at the recent Royal Academy banquet in London.

"Professor," said a graduate, trying to be pathetic at parting. "I am indebted to you for all I know." "Pray do not mention such a trifle," was the unflattering reply.

The *Pall Mall Gazette* recalls the snub that Carlyle is said to have given an American university that proffered him the honor of LL.D. "That you shall ask me," he wrote, "to join in leading your long lines of D.D.'s and LL.D.'s, a line of pompous little fellows, hobbling down to posterity on the crutches of two or three letters of the alphabet, passing on into the oblivion of all universities and small potatoes, is more than I can bear." Carlyle was a great self-made man, no doubt; and still he was always in such an ill humor that nobody could feel that he was entirely pleased with the job.

Education begins the gentleman, but reading, good company and reflection must finish him.—*Ex.*

The *Oberlin Review* commends Professor Frost, of Oberlin, for his diligence in inventing mental stimulants of his class. He has asked the members of the senior class to write out their respective creeds. It is to be hoped none of these "creeds" will ever get outside of the college walls to swell the number of those already abroad.

Work to-day, for you know not how much you may be hindered tomorrow.—*Pliny.*

NOTES AND NEWS.

Sir Morrell McKenzie, than whom there is no better medical authority living, declares that smoking is decidedly injurious to the throat. He says more. He declares that the smoke of tobacco inhaled by those who do not use the weed is more injurious than to use tobacco. This is a terrible indictment. It is suggested to the smoker how great a wrong he may commit upon his friend by forcing him to breathe the poisonous fumes of his pipe or cigar.—*Ex.*

Oh, how heavily passes the time, while an adventurous youth is yearning to do his part in life, and to gather in the harvest of his own renown. How hard a lesson it is to wait. Our life is brief, and how much of it is spent in teaching us only this.—*Hawthorne.*

Edgar L. Wakeman, in "Afoot in Ireland" says of County "Connaught and its "two roads": When you have known these two roads as on one foot may know them, and have followed your fancy for exploration among the quaint pleasant homes in the wilds between, you have witnessed the most interesting in scenery and people that can be found in any portion of Europe.

The greatest shipping company on earth (or sea rather) is the North German Lloyd, with sixty-four steamships. Their service of two ships a week out of New York requires twelve great steamers. Bremen is the eastern terminus of the line.

THE LOVE OF FLOWERS.

"As the twig is bent the tree's inclined," is a trite saying, the truth of which we sometimes forget. Nearly three thousand years ago the wisest of men declared, "Train up a child in the way he should go, and when he is old he will not depart from it." Most persons are born with a natural love for flowers. I never yet saw a toddler whose eyes did not light up with pleasure at the sight of bright blossoms, and whose fingers did not itch to hold in their grasp "the pitty flowers," and small boys show fully as much liking therefor as their sisters. It is considered the proper thing for our girls to wear flowers, to love them and care for them, and so encouraged and trained, the majority of our girls grow up into flower-loving women. On the contrary, in many homes, the boys are made to feel that the love of flowers is "girlish," and trust our modern boy for wanting at all times to be "mannish!" So our boys smother their natural liking with a forced indifference, which later, alas! becomes a second nature. Ninety-nine one-hundredths of the men and women who manifest this indifference never had their tastes cultivated in this direction while young. It is freely admitted that there is a refining, elevating influence about flowers; why, then, should not parents feel it a duty to encourage the love of the beautiful in bud and bloom.—*Vick's Magagine for August.*

THE AUGUST CENTURY.

It is because "The Anglomaniacs" presents a novel aspect of New York life with uncommon pith and wit that the third part, in the August number of *The Century*, will be probably that portion of the magazine to which most readers will first turn. They will find a crisis approaching in the devotion to Miss Lily Floyd-Curtis of Lord Melrose, and look rather keenly for a solution in the concluding installment, in September. In the new chapter of Mrs. Barr's striking novel "Friend Olivia" the heroine sets sail for America with her father, who goes in search of religious freedom and converts. The short story of the number, "The Emancipation of Joseph Peloubet," by John Elliott Curran, introduces a Frenchman who turns his back in disgust on the Second Empire, starts a newspaper in New York which advocates emancipation of the slaves, and collapses, and who then returns to his trade of baking until the breaking out of the war, when he enlists, and his ideals are realized and his life is sacrificed.

Few readers will reach the end of the second paper by Dr. T. H. Mann on his experiences as "A Yankee in Andersonville" without being profoundly touched by the pathos of his helpless journey to his home in Boston. The realistic pictures, made from photographs, add to the interest of the narrative of life in the prison-pens at Andersonville and Florence. Another article bearing briefly on the history of the war, is Miss S. E. Blackwell's statement in "Open Letters" of "The Case of Miss Carroll," whose claims for services to the Union are still unconsidered by Congress.

MORAL RECOVERY.

He who destroys an evil in his own nature gives a good influence to all time. He who reverses adverse heredity is a benefactor of generations. Over all the terrible facts that science reveals in regard to crime is the antidote of faith and spiritual renewal. And he is indeed a celestial knight who changes the current of evil heredity into streams of good, and it is such moral heroism that the new era will recognize and crown. —*Hezekiah Butterworth in the Chautauquan for September.*

Our Story Teller.

A STORY OF THE EBB TIDE.

"Why, child, and thou didst never hear of the mermaids? Mer, thee knowest, means the sea, and they are sea maidens with long silken hair, white arms and green scaly fish-tails instead of feet. All the day long they live beneath the ocean, in beautiful palaces where lustrous jewels with their glitter light the lofty halls. Sometimes after a fearful storm a human body will sink down to the mermaids' home and they grieve because it is always their wish to keep with them a living mortal, they cannot understand the dying." "Grannie, *I* could live in the water, don't you know that you said they took me out of the ocean?" "Tut tut, little girl, thou'rt to quick with thy tongue. If they did take thee from out the sea thou wert lost from some good vessel first and not from sea palaces. I'll not tell thee more of the mermaids, I'm thinking."

"No, no, Grannie, *please* go on, I'll be good," and with a pat of wee, soft fingers the gran'dame's story goes drowsily on "And when the long day hath passed away and the glorious night is come they may rise to the top of the sea and shaking their loose hair to the winds they swim eagerly to the lines of rolling breakers, and lo! the breakers are their horses and restless are waiting for their coming. Then the mermaids mount the great, green fellows and tangle their hands in their long frothy manes and away, away. They gallop up, up on the sand and then swiftly back again. Merry peals of silvery laughter and strange sweet songs echo over the sea and sands, and so the mermaids and their wave horses sport away the glorious night. But at the ebb of the tide, in the cool darkness deep in the night, the maidens rest on the top of the water combing their long, tangled hair with golden combs and sing such sad, sweet, wondrous songs that mortals hearing are lured away and follow them only to die far under the water."

Grannie's low voice ceased but the ocean's monotonous roar took up the story and carried it on and on until the "strange, sweet songs" of the mermaids seemed to rise from the waves and trembling in the air to float across the sandy beach and thrill the listening soul of little gray-eyed Jeanette. Sitting in the twilight on the door-step she had listened to grannie's story. Could all the wondrous things that grannie told her of the sea be true? There was one she loved best to hear, 'twas the story of the time when grannie's son, the brave Leon had rescued the baby Jeanette from the cruel waters and brought her home, a little sea-waif. With her chin leaned on her hand and her clear gray eyes wide open she sat and watched the gray waters, the glistening sands, and the sea-birds about the door and wondered—

She sat so quiet with her thoughts that the fearless birds pulled at her gown as if to bid her come with them. She glanced in at grannie in her old rocker by the open window—the soft, sea wind stole in and stirred the snowy hair on her temples, and lifted the white kerchief on her breast as she nodded, nodded, for grannie slept. "Yes, I will go," spoke Jeanette, as if answering the birds. "I'll go and watch for the mermaids and hark for their songs." Out into the luminous night she walked along the gloomy, quiet sands. A faint phosphorescent radiance made the night strange and unearthly. There was no moon, the stars glimmered dimly through a thin mist; ocean, sky and land seemed melted hazily together. The air was heavy and damp, and the hollow murmur of the waves sounded far away. Weird, ghostly forms of misty light danced in the air and on the water. Jeanette, awed and timid, crept close

to the water's edge and watched the gray ocean break in lines of pale, quivering light, and then reach its long white fingers of foam nearly to her feet. The child shuddered, the night seemed unholy, and yet amid the roar of the waves and the complaining of the winds, she seemed to hear a faint, sweet melody, that like the harmony of the chimes of far away bells and fairy voices, drowsily and low, soothed her and stilled her restless wondering until the tired child sank to rest on the cool, damp sand, and lying awake seemed to sleep and dream. The strains of heavenly music wavered in the air and grew stronger as the tide came in Asleep and dreaming she seemed to be awake and to see the gleaming arms and waving hair of the sporting mermaids, as they rode in to the shore on their cold gray horses. Again and again they reached the sands with sweet, wild songs upon their lips, again and again the great horses galloped back amid the peals of ghostly laughter. Oh, the treacherous, cruel Ocean? His waters crept nearer and nearer to little Jeanette while she slept and dreamed of the merry sea maids.

Wilder and more fierce grew the singing, in their mad sport the wave-horses tore along the beach, nearer and nearer came the riders to Jeanette. Then the sport begins to grow less wild, and sad, sad, strains of music waver in the misty light; 'tis the turning of the tide, a mermaid floating on the retreating billows, singing, sees her, with a tender look in her soft, dark eyes, she has caught the little Jeanette in her cool, clinging arms, and singing borne her away. Fainter and fainter grew the sad, low strains of melodious music, fainter and fainter the sounds of silvery, silvery laughter, for the little Jeanette was floating down, down to the sea-cool halls in the silent ocean. Oh the sea, the greedy sea! with its soft foam finges caressing her tiny form, her long, fair hair, and lifting her helpless hands from the sands, he draws her to him, the little Jeanette, draws her to his mighty bosom. Her long, soft hair, rises and falls on the billows, with a halo of misty radiance around her pale, still face, she sinks slowly, slowly—she has listened to the mermaids' songs.

* * * * * * *

In the early morning, when young Paul stops at the gran'dame's door to call cheerily "A pleasant morning to the little Jeanette," he sees the old lady sitting by the open window. The rising sea-breeze stealing in stirs the snowy hair on her forehead and lifts the white kerchief on her breast. She does not move. for grannie is dead .The wondering neighbors with reverent voices say "She was old, her soul went out with the ebbing of the tide," and they search everywhere for the little Jeanette and find naught but tiny foot-prints in the sand at the edge of the water that with guilty foam fingers strives to hide them. and they say "She was a strange child, the ocean has claimed his own."

Eulalie Powers Woods.

EDITORIAL.

Learn to commit your thoughts and observations to writing. Things that you have thought out and written down are not likely to be forgotten; and then M. Renan has said, "To write well is to think well." Certainly what is well written must be well thought or composed. It is not everyone "whose tongue is like the pen of a ready writer." Learn to write. "The good writer is a complete mind, gifted with judgment, passion, imagination, and at the same time well trained. Good training of the mind is the only school of good style. Wanting that you have merely rhetoric and bad taste."

There are 108 cotton mills in India whose 22,000 looms employ an army of over 90,000 operatives.

Princess Beatrice is writing a book on lace, to be illustrated by herself.

Among the Wits.

IN LIGHTER VEIN.

The "summer girl" of southern California is perennial "an all the year round girl."

Whether there is an open polar sea or not, is an open question.

Love making is a sigh-ence. (Not taught in this institution.)

She—I've been told that you are grave and sedate, but I'm sure I find you jolly. He—Yes, I lose my specific gravity when you are the center of attraction.—*Chicago Post.*

"Papa," said a talkative little girl, 'am I made of dust?" "No my child. If you were you would dry up once in a while."—*Ex.*

Some wag says: There is more talk about culture than there is culture about talk in this country," rather pun-gent, isn't he?

The one flag and one tongue condition of the world does not seem to be immediately desirable. The fighting that must decide which tongue and which flag should prevail would lead to more divisions and worse language.—*New Orleans Picayune.*

This is a *N. Y. Tribune* weather joke: Gladys-Maud, aged ten—"Grammar, how y' spell beas'ly?"

Grandma—"B E A S T L Y, darling, but it's not a nice word for my pet to use."

Gladys-Maud—Well, I don't care, I've got to write to mammer and pepper, 'n I want to tell 'em about the weather."

Grandma—"Oh, very well, pet."

The Liver

When out of order, involves every organ of the body. Remedies for some other derangement are frequently taken without the least effect, because it is the liver which is the real source of the trouble, and until that is set right there can be no health, strength, or comfort in any part of the system. Mercury, in some form, is a common specific for a sluggish liver; but a far safer and more effective medicine is

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For loss of appetite, bilious troubles, constipation, indigestion, and sick headache, these Pills are unsurpassed.

"For a long time I was a sufferer from stomach, liver, and kidney troubles, experiencing much difficulty in digestion, with severe pains in the lumbar region and other parts of the body. Having tried a variety of remedies, including warm baths, with only temporary relief, about three months ago I began the use of Ayer's Pills, and my health is so much improved that I gladly testify to the superior merits of this medicine."—Manoel Jorge Pereira, Porto, Portugal.

"For the cure of headache, Ayer's Cathartic Pills are the most effective medicine I ever used."—R. K. James, Dorchester, Mass.

"When I feel the need of a cathartic, I take Ayer's Pills, and find them to be more effective than any other pill I ever took."—Mrs. B. C. Grubb, Burwellville, Va.

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on the liver, restoring its natural powers, and aiding it in throwing off malarial poisons."—C. F. Alston, Quitman, Texas.

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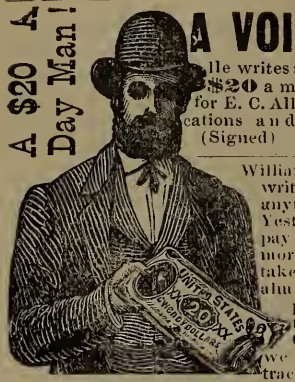

A VOICE from Ohio. Here is a portrait of Mr. Garrison, of Salem, Ohio. He writes: "Was at work on a farm for **$20** a month; I now have an agency for E. C. Allen & Co's albums and publications and often make **$20** a day." (Signed) W. H. GARRISON.

William Kline, Harrisburg, Pa., writes: "I have never known anything to sell like your album. Yesterday I took orders enough to pay me over **$25**." W. J. Elmore, Bangor, Me., writes: "I take an order for your album at almost every house I visit. My profit is often as much as **$20** for a single day's work." Others are doing quite as well; we have not space to give extracts from their letters. Every one who takes hold of this grand business piles up grand profits. **Shall we start YOU in this business,** reader? Write to us and learn all about it for yourself. We are starting many; we will start you if you don't delay until another gets ahead of you in your part of the country. If you take hold you will be able to pick up gold fast. ☞**Read**—On account of a forced manufacturer's sale **125,000 ten dollar Photograph Albums** are to be sold to the people for **$2** each. Bound in Royal Crimson Silk Velvet Plush. Charmingly decorated insides. Handsomest albums in the world. Largest Size. Greatest bargains ever known. Agents wanted. Liberal terms. Big money for agents. Any one can become a successful agent. Sells itself on sight—little or no talking necessary. Wherever shown, every one wants to purchase. Agents take thousands of orders with rapidity never before known. Great profits await every worker. Agents are making fortunes. Ladies make as much as men. You, reader, can do as well as any one. Full information and terms **free,** to those who write for same, with particulars and terms for our Family Bibles, Books and Periodicals. After you know all, should you conclude to go no further, why no harm is done.

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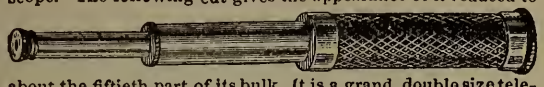

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